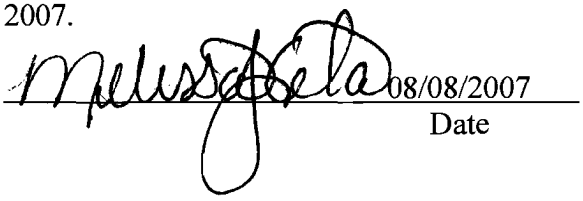
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No.	:	10/023,437
Applicant	:	Stephen A. Johnson et al.
Filed	:	December 17, 2001
Title	:	Methods and Compositions For Vaccination Comprising Nucleic Acid and/or Polypeptide Sequences Of Chlamydia
TC/A.U.	:	1645
Examiner	:	Vanessa L. Ford
Docket No.	:	5171-00041

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Mail Stop- AF, P.O. Box 1450, Alexandria, VA 22313-1450 8th day of August, 2007.



08/08/2007
Date

DECLARATION OF DR. BERNHARD KALTENBOECK UNDER 37 C.F.R. §1.132

Commissioner of Patents
Mail Stop - AF
P.O. Box 1450
Arlington, VA 22313-1450

Sir:

COMES NOW Dr. Bernhard Kaltenboeck and declares as follows:

1. I am a tenured Professor of Veterinary Medicine at the College of Veterinary Medicine of Auburn University, in Auburn Alabama, USA. I earned my DVM degree in 1976 and my Dr. med. vet. degree in 1977 from the Veterinary Medical University in Vienna, Austria. Between 1977 and 1987, I gained extensive experience in food animal practice with emphasis on dairy cattle. I received my Doctor of Philosophy degree from Louisiana State University under the guidance of Dr. Johannes Storz. In addition to several national honors for publications resulting from my doctoral research, I received the Distinguished Dissertation Award for 1991 from Louisiana State University for my dissertation, "PCR amplification of chlamydial MOMP genes: detection, sequence analysis and evolution". After a 2-year tenure at the Veterinary Medical University in Vienna, Austria, I joined the faculty at Auburn University in 1994.

2. I am a named inventor on the above-identified patent application, U.S. Patent Application No. 10/023,437 filed on December 17, 2001, by Stephen A. Johnson et al. and find that the

invention currently claimed in this patent application is for a method of immunizing an animal by administering a Chlamydia antigen having particular nucleotide or peptide sequences.

3. I have reviewed the Office Action mailed June 29, 2007. By the present declaration I will set forth why the claims are enabled, and particularly how the data of Figure 5 correlates to the specific SEQ ID NOs recited in the claims.

4. On page 15 of the present application, the description of Figure 5 recites "[t]he numbers of each individual gene fragment tested correspond to the numbers in FIG. 4." Thus, the numbers 1-14 are "CP4" numbers, i.e. *Clamydia psittaci* gene fragment numbers identified from Round 4. Figure 5 gives the "relative protection score," as discussed in my previous declaration, for these single gene fragments number CP4#1 through CP4#14 .

5. The description of Figure 6 on page 15 is helpful: "**Fig. 6. Summary of characterization of the single gene fragments of Round 4.** The relative protection score of each *Chlamydia psittaci* (CP) gene fragment is provided along with the designation of the gene in *Chlamydia pneumonia* that has highest similarity (*Chlamydia pneumonia* homolog). In two cases, gene fragment CP#4 and CP#12, the *Chlamydia psittaci* gene could also be identified. On the right is a linear map showing the location of each gene of the fragment that conferred protection (shaded)." A view of Figure 6 reveals designations for CP4#1 through CP4#14 and the relative protection scores correlate to numbers 1-14 on Figure 5. This further evidence that the numbers in Figure 5 correlate to the "CP4" numbers.

6. Referring now to Table 3, the sequence listing index beginning on page 75, that index correlates the SEQ ID NOs to "CP4" numbers identified in Figures 5 and 6. Thus the "CP4" numbers listed in Table 3 correlate directly to "CP4" numbers of Figure 5. It is important to note that like Figure 5, Table 3 only includes CP4#1-14. Thus, CP4#1 correlates to claimed SEQ ID NOs 7 and 9, while CP4#2 correlates to SEQ ID NOs 11 and 13.

7. Table 3 also clarifies the Examiner's confusion on how to distinguish the "CP4" numbers and the SEQ ID NOs cited on page 75. Both SEQ ID NO 7 and SEQ ID NO 9 are designated by CP4#1. As explained on page 75, SEQ ID NO 7 is a "polypeptide translation corresponding to the SEQ ID NO 6, homolog to *Chlamydia pneumonae* DNA Pol III Gamma and Tau Subunits (dnaX2gene)." SEQ ID NO 6 is a "(fragement) homolog to *Chlamydia pnuemonae* DNA Pol III

Gamma and Tau Subunits (dnaX2gene)." Accordingly, as explained by Table 3, SEQ ID NO 7 is the polypeptide translation of the sequence fragment identified by SEQ ID NO 6.

8. SEQ ID NO 9 described as a "polypeptide translation corresponding to SEQ ID NO 8, homologue to *Chlamydia pneumonae* DNA Pol III Gamma and Tau subunits (dnaX2gene)." SEQ ID NO 8 is the "(full length) homologue to *Chlamydia pneumonae* DNA Pol III Gamma and Tau subunits (dnaX2gene)." Thus, SEQ ID NO 9 is polypeptide translation that corresponds to the full length SEQ ID NO 8.

9. Accordingly, the difference between SEQ ID NO 7 and 9 are that SEQ ID NO 7 is a translation that corresponds to a fragment of the gene sequence, while SEQ ID NO 9 is a translation that corresponds to the full length gene sequence. Since the fragment is contained within the full length sequence, both are represented by measurements made at CP4#1.

10. The exact same reasoning applies with respect to as to why SEQ ID NO 11 and 13 are both represented by CP4#2. The evidence is fully set forth in Table 3 beginning on page 75 with the instant specification.

11. Thus, it is clear that the SEQ ID NOs claimed in the instant claims are used to generate the data presented in Figure 5 of the instant specification. It is clear from the specification that the antigens used in the experimental examples correlate to the data presented in Figure 5, and it is absolutely clear that the antigens recited in the claim method were used in the experimental examples.

12 The undersigned hereby declares that all statements made herein are of his own knowledge, are true and that all statements made on information are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the patent.

Dated: July 30, 2007

Bernhard Kaltenboeck

Dr. Bernhard Kaltenboeck